

Abstract

Biphasic alloys, formed through a spinodal decomposition process, are disclosed. The alloys have improved strength and hardness, over single phase alloys, due to coherency strain between the phases. They are prepared from readily available transition metals, which 5 participate in magnetic interactions, and they can be used to make large, high-strength parts, for example, of types that cannot be made by extrusion, forging or cold working techniques.